

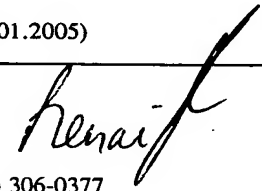
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PATENT COOPERATION TREATY PCT/PTC 22 FEB 2005

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 26726	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IL03/00695	International filing date (day/month/year) 21 August 2003 (21.08.2003)	Priority date (day/month/year) 22 August 2002 (22.08.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): G09G 3/14, 3/16, 3/32, 3/34 and US Cl.: 345/39, 48, 82, 84		
Applicant MICRO-D LTD.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of ___ sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 09 February 2004 (09.02.2004)	Date of completion of this report 06 January 2005 (06.01.2005)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer Mike Razavi  Telephone No. (703) 306-0377	

Form PCT/IPEA/409 (cover sheet)(July 1998)

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☒ the description:  
pages 1-15 \_\_\_\_\_ as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
pages 16-19 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
pages 1-10 \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
pages NONE \_\_\_\_\_, as originally filed  
pages NONE \_\_\_\_\_, filed with the demand  
pages NONE \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/IL03/00005

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. STATEMENT**

Novelty (N)	Claims <u>1-35</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-35</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-35</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Please See Continuation Sheet

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Claims 1-35 an inventive step under PCT Article 33(3) as being obvious over Youngquist.

Youngquist discloses a pixel based electronic display comprising a plurality of pixels, wherein said pixels respectively comprise dots of light emitting diode material (paragraph 0030)

Regarding claim 2, Youngquist discloses wherein said pixels are arranged as segments of at least one seven-segment numeric display. (figure 8, paragraph 0037)

Regarding claim 3, Youngquist discloses wherein said light-emitting diode dots are bonded to at least one underlying PCB. (paragraph 0028)

Regarding claim 4, Youngquist discloses wherein said light-emitting diode dots are wire-bonded to said at least one underlying PCB. (paragraph 0031)

Regarding claim 5, Youngquist discloses wherein all of said pixels in any one of said segments are commonly wired. (paragraph 0030)

Regarding claim 6, Youngquist discloses wherein said light emitting diode dots are of a thickness not exceeding 200 microns. (paragraph 0030)

Regarding claim 7, Youngquist discloses wherein said underlying PCB is of a thickness not exceeding 200 microns. (paragraph 0033)

Regarding claim 8, Youngquist discloses wherein said underlying PCB is of a thickness not exceeding 150 microns. (paragraph 0046)

Regarding claims 9 and 10, Youngquist discloses pixel brightness of substantially  $4\text{Cd}/\text{cm}^2$  at a power of substantially 1.5mA. (paragraph 0039)

Regarding claim 11, Youngquist discloses incorporated into a smart card. (paragraph 0014)

Regarding claim 12, Youngquist discloses associated with a thin flexible battery within said smart card. (paragraph 0028)

Regarding claim 13, Youngquist discloses associated with at least one pressure sensor based input device. (figure 1, element 10, paragraph 0025)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.  
PCT/IL03/0

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Regarding claim 14, see above rejection for claim 1.

Regarding claim 15, Youngquist discloses further comprising a thin flexible battery for powering at least said display-screen. (paragraph 0038)

Regarding claim 16, Youngquist discloses wherein said display screen comprises a plurality of segments, each segment comprising a plurality of pixels wired together. (paragraph 0029)

Regarding claims 17-26, see above rejection for claims 2-10 and 13, respectively.

Regarding claim 27, Youngquist discloses timing circuitry associated with said display screen, for energy management of said display screen. (paragraph 0038)

Regarding claims 28, 30, 32-33, see above rejection for claims 1 and 6-8 respectively.

Regarding claim 29, Youngquist discloses providing pixel dots comprising using a masking procedure. (paragraph 0037)

Regarding claim 31, Youngquist discloses the LED material is phosphide-doped Gallium arsenide. (paragraph 0028)

Regarding claim 34, Youngquist discloses backing layer is of a thickness of substantially 300 microns. (paragraph 0044)

Regarding claim 35, Youngquist discloses coating said display with a layer of epoxy resin. (paragraph 0045)